David M.
Evan L.
Michael C.
Tessera C.

Studio Theme: Home

Assignment 2: POVs and Experience Prototypes

Preliminary POV

We met Ruth, a full-time stay-at-home mother of 5. We were amazed to realize she organized all activities and events in a personal planner. It would be game changing to have an easier method of communicating and organizing different activities between members of a household.

Problem Domain

Our preliminary POV examined **improving communication** within the household. Based on our previous needfinding results, we decided to both expand on and narrow down on varying aspects. First, rather than limiting ourselves to the common household, we wanted to explore facets of communication present in all meanings of the word home, however one may define it. Then, we narrowed our problem domain to target **young adults** -- hence, the question that we sought to answer through additional needfinding was: how do we improve communication between young adults at home?

Additional Needfinding Results

Alex is a music major at Northwestern whose living situation was somewhat unique in that he and his housemates operate almost completely independently. He lives with two other

Northwestern students, who each have their own rooms, cook their own food, and spend most of their time outside the apartment. Once, when they tried to contact the landlord, they found that he didn't respond to texts or emails, yet they were also too lazy to call him.

Alex also spoke about a newfound feeling of belonging at home while roaming throughout the music building, where he spends most of his time. Realizing that he can chat or hang out with friends anytime, Alex associated "home" with being with the people he cared about.

We talked to Molly, a 26-year old staff worker for InterVarsity Christian Fellowship who lives with 7 other people in East Palo Alto. Molly expressed desire for a house task list and a method of scheduling to help her entire house spend more time together. She recalled purchasing a dining table for the house, and how it brought them closer together, since they would sit at the table for various reasons throughout the day. She wants to find more small ways like this to bring her house closer together.

Revised POVs and HMW Statements

POV 1: Jennifer

We met Jennifer, a senior at the USC School of Cinematic Arts who lives in an off-campus apartment with 7 other housemates. We were amazed to realize that none of the housemates actually took responsibility for any mess that they made. It would be game changing to have an easy solution to manage responsibilities and accountability of all members sharing a living space.

How might we…
- **incentivize cleaning and punish those who don't?**
- create a more harmonious living space?
- increase communication?
- make cleaning fun?

- change roommates' attitudes?
- reduce messes?
- rotate cleaning jobs?
- make cleaning social?
- use the mess for good?
- group people based on messiness preference?
- turn the mess into a playground?
- incentivize responsibility between housemates?
- employ accountability tactics?

POV 2: Emmanuel

We met Emmanuel, a full-time software engineer in his mid thirties who lives in a studio apartment by himself. We were amazed to realize that although he lived by himself, he was still considerate of his neighbors and conscientious of his living habits. It would be game changing to create a more transparent relationship between him and his neighbors.

How might we…
- **have a system to summarize one's neighbor's quiet hours?**
- **gauge a neighborhood's quiet preferences?**
- create an intermediary system for noise complaints?
- make it easier to complain about your neighbors?
- increase communication between neighbors?
- turn your own house's mess into a bonding activity?
- replicate other neighbors' experiences to increase empathy?
- remove or reduce worry about disturbing your neighbors?
- encourage considerateness within a neighborhood?
- make loudness a positive thing?
- promote transparency between neighbors?

POV 3: Jessica

We met Jessica, a Stanford student whose parents own and live in a mobile home. We were amazed to realize that despite the inconveniences and difficulties associated with sharing a small space with others, she still enjoyed her experience in her new "home" with her parents. It would be game changing to keep the social benefits associated with sharing a living area, yet also clearly define one's personal space.

How might we…
- **make it easier to communicate momentary openness?**
- **make it easier to express need for personal space?**
- eliminate the need for personal space?
- foster shared experiences?

- strengthen bonds between people who share space?
- encourage spending more time with housemates in a communal space?
- more efficiently utilize communal space?
- create a better way of scheduling "me" time?
- transform personal space into a shared space?
- encourage smaller spaces?

Two of our top three HMWs ended up being a combination of similar HMWs our team came up with, and we ended up with one HMW from each POV. They were:
- HMW **incentivize cleaning and punish those who don't?** (POV 1)
- HMW **have a system to summarize the neighborhood's quiet preferences?** (POV 2)
- HMW **make it easier to both communicate momentary openness while also being able to express the need for personal space?** (POV 3)

Solutions and Experience Prototypes

Solution 1: A messaging app that is able to track and manage multiple issues (in response to HMW incentivize cleaning and punish those who don't?) At first, our HMW included just cleaning, but we eventually expanded it to include overall household communication in delegating chores.

Prototype 1: Community Task List

For this experience prototype, we assumed that tasks assigned to different members of group can often be difficult to delegate both fairly and in a way that ensures that all tasks are completed. To make this prototype, we created a simple collective list of tasks around the home that needed to be completed in order to see how it could be manipulated and used to make completing tasks easier. To test the prototype, we asked users to imagine living with several others, and then gave them the list of tasks. They were then asked to do whatever they felt with the list such that the tasks on it would be completed.
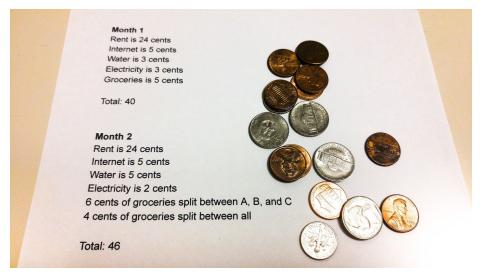
One user, Sarah, took full advantage of the list, categorizing tasks and fairly assigning them to housemates. Another user, Mark, did not really make use of the list. Instead, he used items in the list to create house rules that, if followed by the group, would make sure the tasks were completed.

After testing the experience prototype, we learned that a carefully constructed list could help make completing tasks more manageable, but there was also a dependence on the relationship between the members of the group. To some extent, our assumption was valid. Our needfinding interviews made us feel that living with a group of people is complicated, but, as Mark's response to our prototype showed, these complications can be avoided with agreements among the people in the group.

Solution 2: Have a "house finance manager," which keeps track of the total cost of rent and all bills (also in response to HMW incentivize cleaning and punish those who don't?)

Prototype 2: Household Finance Manager

Month 1
Rent is 24 cents
Internet is 5 cents
Water is 3 cents
Electricity is 3 cents
Groceries is 5 cents

Total: 40

Month 2
Rent is 24 cents
Internet is 5 cents
Water is 5 cents
Electricity is 2 cents
6 cents of groceries split between A, B, and C
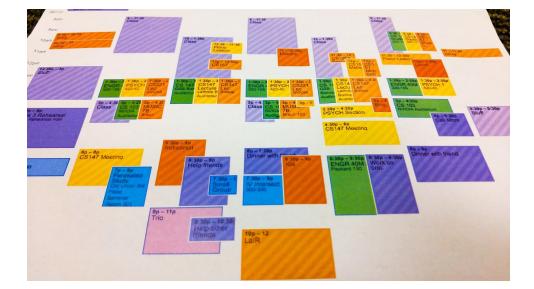4 cents of groceries split between all

Total: 46

For this experience prototype, we wanted to test our app idea for managing household costs, which organized roommate costs and automated payments. We assumed that managing money is already difficult on its own, so people would appreciate a more streamlined experience in keeping track of group expenses while preventing mistrust.

To make the prototype, we created three months' worth of expenses for four roommates. In testing, we gathered four people, assigned them each a roommate role, and gave them 50 cents to put in their "bank accounts". Every month, the users were given a breakdown of costs and had to figure out how much they owed. Before people figured out their amounts, we collected their (correct) contributions without asking them.

Generally speaking, our users liked having their portion of rent calculated for them. However, many objected to our solution wherein we automatically withdrew money from everybody's accounts -- they wanted to be able to confirm all payments before the money was transferred. They would rather "loan" money to non-paying roommates, and perhaps have a system that keeps track these specific roommates.

Our assumption was valid, yet we still learned ways to improve our solution. A newly emerged assumption is that people would be willing to use an app that requires confirmation from each roommate before they make a payment -- would this make it more likely for housemates to pay their portion of rent on time?

Solution 3: Have an app that serves as a group scheduler of when people are want to hang (in response to HMW make it easier to both communicate momentary openness while also being able to express the need for personal space?)

Prototype 3: Dining Table

       "Dining Table" is a working title that branched off of Molly's table that helped bring her house closer together. We wanted to create a virtual "table" where people can easily update their availability statuses and find others to socialize with. For this experience prototype, we wanted to test our assumption that it can be a frustrating task to find people for spontaneous activities, and also to gauge people's ideas for ideal solutions to this problem.

       The prototype itself was the following scenario: the participant just got off work unexpectedly early -- what do they do? We followed up with a series of questions about how they might either avoid or seek out company, and posed problems along the way such as "What if all three of these friends are busy at the moment?", which we find to be a rather common occurrence.

       Once we established frustration in the participants, we handed them a messy calendar of 4 different people's overlaid schedules. The purpose was to give them something intentionally unhelpful, which they could critique and think about how they might solve the problem in a better way.

       Thus, we were able to induce solutions from our interviewees and gain new insight into people's specific needs. We found that our interviewees became frustrated with trying to contact people, and one of the participants even suggested a solution similar to our own. This experience prototype confirmed all of our initial assumptions.

Most Successful Prototype

In our opinion, the most successful prototype was the household finance manager, since the experience we portrayed was most similar to that of the app, and we also learned enough from testers such that we would be able to improve on our current design.